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EXAMINER
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**Technology Center 2100**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 19

Application Number: 09/407,915  
Filing Date: September 29, 1999  
Appellant(s): SQUIRE ET AL.

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Daniel E. Venglarik  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 01/30/04.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

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**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that Claims 1-70 rejected will be grouped together as follows:

Group A – claim 1;

Group B – claims 1-6, 15-20, 29-34, 43-48 and 57-62; and

Group C – claims 7-14, 21-28, 35-42, 49-56 and 63-70;

Group D – claims 2, 16, 30, 44 and 58

Group E – claims 5, 19, 33, 47 and 61

Group F – claims 6, 20, 34, 48 and 62

Group G – claims 7, 21, 35, 49 and 63

Group H – claims 8, 22, 36, 50 and 64

Group I – claims 11, 53 and 67

Group J – claims 12, 26, 40, 54, and 68

Group K claims 14, 28, 42, 56 and 70.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix A to the brief is correct.

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**(9) Prior Art of Record**

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

<b>5,708,778</b>	<b>Monot</b>	<b>01-1998</b>
<b>6,012,088</b>	<b>Li et al</b>	<b>01-2000</b>
<b>5,838,907</b>	<b>Hansen</b>	<b>11-1998</b>
<b>6,286,038</b>	<b>Reichmeyer et al</b>	<b>09-2001</b>

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-70 are presented for examination.
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Monot (U.S. 5,708,778) and further in view of Li et al (U.S. 6,012,088).

As per claim 1, Monot discloses a method of configuring a first network device for connection to a communications network subnet having a second network device, the method comprising: determining, with a configuration determination module of the first network device (col. 2, lines 10-40), configuring the first network device, with an auto configuration module of the first network device, accordingly to the configuration attributes so that the first network device is operably connected to the subnet (col. 2, lines 41-63).

However Monot failed to disclose configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device.

In the same field of endeavor Li disclosed Some of this customer information comes from the customer itself (e.g., a desired domain name), while some information is generated by the ISP itself (e.g., the IP address block) (col. 9, lines 52-55). The configuration file contains all of the configuration needed by the customer to configure his Internet access device for the customer desired level of service (col. 9, lines 57-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first

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network device as taught by Li in the method Monot to be able to configure the existing infrastructure of the Network in order to retrieve configuration data from any location.

4. Claims 1-6, 15-20, 30-34, 43-48, 57-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen (U.S. 5,838,907) and further in view of Li et al. (U.S. 6,012,088).

As per claim 1, Hansen teaches a method of configuring a first network device for connection to a communications network subnet having a second network device, the method comprising: determining, with a configuration determination module of the first network device (col. 2, lines 39-67), configuration attributes for operably connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device (col. 15, lines 5-18). Hansen does not explicitly disclose configuring the first network device, with an auto configuration module.

However, Li teaches configuring the first network device, with an auto configuration module of the first network device, accordingly to the configuration attributes so that the first network device is operably connected to the subnet (col. 3, lines 23-67).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate an auto configuration module to a communications network in the method of Hansen to increase the efficiency of the network by reducing the down time in the network.

5. As per claim 29 Hansen-Li disclosed a computer network having at least one sub network, the at least one sub network having a plurality of data routers that communicate data packets over the network, the sub network including at least one auto configuring data router, the at least one auto configuring data router comprising: a configuration determination module that determines configuration attributes for operably connecting the auto configuring data router to the subnet based on configuration information for the subnet detected by the auto configuring data router (Hansen, Fig. 1A, col. 4, lines 48-67, col. 5, lines 1-35 & col. 15, lines 5-18); auto configuration module that configures the auto configure data router according to the configuration attributes so that the auto configuring data router is operably connected to the subnet (Li, Fig. 1, element 10, col. 4, lines 46-67, col. 5, lines 1-23 & col. 9, lines 11-26).

6. Regarding claims 2, 16, 30, 44, 58, Hansen-Li taught configuring the first network device automatically by the auto configure module (Li, col. 3, lines 46-61).

7. Regarding Claims 3, 17, 31, 45, 59, Hansen-Li taught configuring the first network device as a guided process in which the auto configuration module interacts with user and presents to the user suggested configuration choices based on the configuration attributes (Li, col. 9, lines 26-59).



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8. Regarding claims 4, 18, 32, 46, 60, Hansen-Li taught accompanying configuration choices by an explanation to the user as to why the configuration choices have been suggested (Li, col. 9, lines 13-25).

9. Regarding claims 5, 19, 33, 47, 61, Hansen-Li taught configuration attributes comprise an Internet Protocol (IP) subnet mask determined based upon the configuration information unique to the subnet and derived from passively listening to router control traffic detected by the first network device at interfaces between the first network device and the subnet (Li, col. 3, lines 46-61).

10. Regarding claims 6, 20, 34, 48, 62, Hansen-Li taught configuration attributes comprise at least one of Dynamic Host Configuration Protocol (DHCP) forwarding data and DHCP server address (Li, col. 15, lines 60-66).

11. Claims 7-14, 21-28, 35-42, 49-56, 63-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen (U.S. 5,838,907) in view of Li et al. (U.S. 6, 012, 088), and further in view of Reichmeyer et al. (U.S. 6, 286, 038).

Regarding claims 7, 21, 35, 49, 63, Hansen-Li- Reichmeyer taught configuration attributes comprises virtual local area network (VLAN) information including tag identifications, types, protocols, addresses, and port-to-VLAN mappings (col. 7, lines 20-31).

Hansen and Li fail to disclose the VLAN information as configuration attributes.

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It would have been obvious to one having ordinary skill in the art at the time of the invention was made incorporated the VLAN information as configuration attributes in the methodology of Hansen and Li to increase the efficiency of the networking method by making it more diversified.

12. Regarding claims 8, 22, 36, 50, 64 Hansen-Li- Reichmeyer taught configuration attributes comprise at least one of the Spanning Tree Group information, Simple Network Management Protocol (SNMP) server addresses (Reichmeyer, col. 4, lines 44-50). OSPF, RIP and VRRP are well know routing protocols in routing configuration of a router and according to Network working group RFCs Open Shortest Path First (OSPF) timer information (RFC 1583), Routing Information Protocol (RIP) broadcast timer information (RFC 2453), and Virtual Router Redundancy Protocol (VRRP) information (RFC 2338) are very well explained.

13. Regarding claims 9, 23, 37, 51, 65, Hansen-Li- Reichmeyer taught wherein the step of determining configuration attributes further comprises communicating with a network centralized configuration server (Li, col. 10, lines 6-16).

14. Regarding claims 10, 24, 38, 52, 66, Hansen-Li-Reichmeyer taught configuring network centralized server using Simple Network Management Protocol (SNMP) to communicate (Reichmeyer, col. 4, lines 44-50).

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15. Regarding claims 11, 53, 67, Hansen-Li-Reichmeyer taught wherein the step of communicating with a network centralized configuration server comprises: sending to the centralized configuration server a message containing addresses of network neighbours on the subnet (Reichmeyer, Fig. 3, col. 5, lines 26-67); searching in a configuration database of the centralized configuration server for configuration attributes relevant to the first network device (Reichmeyer, col. 6, lines 66-67 & col. 7, lines 1-10); and forwarding the configuration attributes from the configuration database to the first network device (Reichmeyer, col. 6, lines 36-42).

16. Regarding claims 12, 26, 40, 54, 68, Hansen-Li-Reichmeyer taught wherein the step of determining configuration attributes further comprises communicating with the second network device (Hansen, col. 2, lines 39-67)

17. Regarding claims 13, 27, 41, 55, 69, it is well known in the art of networking according to networking group RFCs that wherein the step of communicating with the second network device using a protocol based on Internet Control Message Protocol (ICMP) (RFC 1885) or User Datagram Protocol (UDP) (RFC 1240). In the field of networking ICMP and UDP are very common networking protocols and very well explain according to Networking group RFCs.

18. Regarding claims 14, 28, 42, 56, 70, Hansen-Li-Reichmeyer taught wherein the step of determining configuration attributes comprises analyzing routing protocol control packets be detected by first Network device (Li, col. 15, lines 17-67 & col. 16, lines 1-4).

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19. Regarding claims 25, 39, Hansen-Li-Reichmeyer taught configuration determination module receives relevant configuration attributes from the centralized configuration server (Reichmeyer, Fig. 6,col. 10, lines 26-67).

**(11) Response to Arguments**

In the remarks, applicant argued in substance that

(A) Applicant argued that prior art failed to establish a prima facie case of obviousness.

As to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case connecting the first network device to the subnet based on configuration information for the subnet detected by the first network device is to achieve the retrieving of the configuration data from any location by configuring the existing infrastructure

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of the network and it will result in reducing the financial burden by upgrading the existing infrastructure, also reducing the latency in terms of reducing the congestion in the network.

(B) Applicant argued that prior art did not disclose determination within a first network device of configuration attributes for operably connecting the first network device to the subset based on configuration information for the subnet, and configuring the first network device for operable connection to the subnet according to the configuration attributes.

As to applicant's argument prior art Monot disclosed an interactive probing technique that sends probes, whether packets, messages, frames, datagrams, or like, from a DTE to a DCE (Monot, col. 2, lines 41-44). The probe is based on initial set of potential values for the parameter, any prior probes for the parameter, any answers received from the network equipment device in response to the any prior probes (Monot, col. 2, lines 15-18). Also prior art Li disclosed some of this customer information comes from the customer itself (e.g., a desired domain name), while some information is generated by the ISP itself (e.g., the IP address block) (Li, col. 9, lines 52-55). The configuration file contains all of the configuration needed by the customer to configure his Internet access device for the customer desired level of service (Li, col. 9, lines 57-59). In prior art Monot one having ordinary skill in the art at that time of the invention knows that configuration attributes can be easily related to parameter values by using probes. Also one having ordinary skill in the art at the time of the invention know that probes detects any change in the value or parameters related to device by acting as part of the function of the protocol

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parameter as Monot disclosed the automatic configuration program determines from the probe, the answer selected one of the prior probes, and selected one of the prior answers whether a value that correctly configure the parameters may be established (Monot, col. 2, lines 52-56). In relation to prior art Li one having ordinary skill in the art at the time of the invention knows that configuration attributes for operably connecting the first network device to the Internet based on configuration information for the subnet detected by the first network device hold the same meaning as to the configuration file contains all of the configuration needed by the customer to configure his Internet access device for the customer desired level of service (Li, col. 9, lines 57-59)., where configuration file as to configuration attributes.

(C) Applicant argued that the probe, however does not involve detecting configuration information for the network, only the parameters which should be used by the terminal to operate with the network.

As to applicants argument one ordinary skill in the art can understand that word probing in the field of networking can be described as detecting configuration information for the network.

(D) Applicant argued that prior art did not disclose “automatic configuration program” that configures terminal with configuration attribute based on configuration information for the subnet.

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As to applicants arguments Monot disclosed a configuration package provides conventional configuration, and other facilities for DTE. The addressable memory includes at least one data store for layer 3 configuration parameters. The configuration parameters can be related to configuration attributes related to subnet (col. 3, lines 56-59). The concept and functionality are in parallel to each other.

(E) Applicant argued that prior failed to disclose a configuration determination module.

As to applicant's argument Hensen did not teach auto configuration module but Li teaches auto configuration module. Hensen did disclose configuration manager includes a configuration script stored in a memory subsystem of a computer system and first and second software modules respectfully executable by a processor subsystem of the computer system. The configuration script contains a series of executable instructions for constructing a configuration file and bootptab file suitable for identifying a network device (col. 2, lines 41-47). One having ordinary skill in the art at that time of the invention can easily relate having configuration manger consisting of configuration script that contains a series of executable instructions to applicant's configuration determination module. Hensen also disclosed if the network device is unconnected, powered down or otherwise unavailable. A bootptab file for a device contains the IP address to assign to the device to be configured, an IP address to assign the device to be configured and the configuration file to be uploaded to the device (col. 15, lines 11-15). One having ordinary skill in the art at the time of the invention clearly related to the bootptab file as configuration attributes

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as was received and Hensen disclosed also the boottab file provides information necessary for unattended remote configuration of network devices as they are connected to the network (col. 15, lines 16-18). As to above Hensen's statement one having ordinary skill in the art at the time of the invention knows that bootptabe retrieve this information from the remote Network devices related to as detecting the configuration information for the subnet by the first network device.

(G) Applicant didn't raise issue in regards to claim 29, therefore examiner accepted that applicant agreed with the Examiner's rejection. It is right to say that claim 29 is not unpatentable.


For the above reasons, it is believed that rejection should be sustained.

Respectfully submitted,

A.M.

April 09, 2004


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